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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,020	12/03/2001	David W. Smithey	7647-000024	9692
27572	7590	01/29/2004	EXAMINER	
HARNES, DICKEY & PIERCE, P.L.C.			ATKINSON, CHRISTOPHER MARK	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	

3753  
DATE MAILED: 01/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/005,020

Applicant(s)

Smith et al.

Examiner

D. H. Wilson

Art Unit

3753

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 9/29/03
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above, claim(s) 25-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-949)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other \_\_\_\_\_

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***Response to Election***

Applicant's election with traverse of the Group I invention in Paper No. 4 is acknowledged. The traversal is on the ground(s) that the inventions are so closely related that maintaining them in the same application would not cause undue hardship for the Examiner. This is not found persuasive because searching two different and distinct inventions surely places a serious burden on the Examiner.

Applicant's election without traverse of species A as illustrated in figures 1-3 in Paper No. 4 is acknowledged. Applicant is correct in stating there are generic claims.

The requirement is still deemed proper and is therefore made FINAL.

Claims 25-37 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention, the requirement having been traversed in Paper No. 4.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 8-12, 17 and 21-24 are rejected under 35 U.S.C. § 102(b) as being anticipated by Asano. See figures 1-3.

***Claim Rejections - 35 USC § 103***

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The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-7, 10-20 and 23-24 are rejected under 35 U.S.C. § 103 as being unpatentable over Pestiaux in view of Shoop. The patent of Pestiaux, in figures 1-4 and 7, discloses all the claimed features of the invention with the exception of manifolds, the tube being flat and the fins being corrugated. In view of the recitations "refrigeration" and "radiateurs" in Pestiaux, Official Notice is taken that in order for a heat exchanger tube to exchanger heat/operate as intended in these types of systems, manifolds are used. See at least figure 1 in Guyton.

The patent of Shoop, in figures 1-3, discloses that it is known to have corrugated fins on a flat tube for the purpose of manufacturing a heat exchanger in a very simple and inexpensive method and maximizing the heat exchanger area. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Pestiaux corrugated fins on a flat tube for the purpose of manufacturing a heat exchanger in a very simple and inexpensive method and maximizing the heat exchanger area as disclosed in Shoop.

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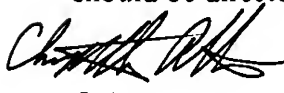
Claims 8-9 and 21-22 are rejected under 35 U.S.C. § 103 as being unpatentable over Pestiaux in view of Shoop as applied to claims 1-7, 10-20 and 23-24 above, and further in view of Paulman et al. The patent of Pestiaux as modified, discloses all the claimed features of the invention with the exception of a plurality of passageways.

The patent of Paulman et al., in figures 1-6, discloses that it is known to have a plurality of passageways in a flat tube for the purpose of obtaining a multiport tube which has a large internal heat exchanging surface area and is structurally strong. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Pestiaux as modified, a plurality of passageways in a flat tube for the purpose of obtaining a multiport tube which has a large internal heat exchanging surface area and is structurally strong as disclosed in Paulman et al.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.

 CHRISTOPHER ATKINSON  
PRIMARY EXAMINER

C.A.  
1/27/2004